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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/829,269

04/22/2004

Richard B. Evans

03-1272

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02/01/2010

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EXAMINER

LEE, LAURA MICHELLE

ART UNIT

PAPER NUMBER

3724

NOTIFICATION DATE

DELIVERY MODE

02/01/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeeiplaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/829,269	<b>Applicant(s)</b> EVANS, RICHARD B.	
	<b>Examiner</b> LAURA M. LEE	<b>Art Unit</b> 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-9 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-9, 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/16/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. This office action is in response to the amendment filed on 12/16/2009 in which claims 1-3, 6-9, and 25 are pending, claim 1 is currently amended, and claim 25 is new.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 7-8, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (U.S. Patent 5,265,508), herein referred to as Bell in view of Gharst et al. (U.S. Patent 6,813,985), herein referred to as Gharst and Mosiewicz et al. (U.S. Publication 2006/0096434) and Jung (U.S. Patent 6,152,003) and in still further view of Hreha (U.S. Patent 4,077,290).

Bell discloses a system comprising: an anvil (T-shaped member, 72; Figure 9-10) and a ultrasonic blade (ultrasonic cutting tool, 4), the anvil for providing support to a backed ply material during a cutting operation by the ultrasonic blade (4), the back ply material comprising a ply material and a backing (the material is not being positively claimed) traveling in a first direction(towards the blade), the ultrasonic blade having a

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cutting profile (blade 46), the ultrasonic blade being operable to travel along a cutting path (along channel 73) the cutting path being orientated in a transverse manner relative to the first direction, the anvil comprising: a rigid base (bottom of T- shaped member) for securing the anvil to a cutting assembly; an inverted channel (channel 73) in the rigid base and coinciding with the cutting path; an insert (Lexan plastic strip 74) to mate with the channel; a surface (top of insert) on the insert to support the backed ply material, the surface being secured to the base (72).

Bell does not disclose a groove disposed upon the surface and coinciding with the cutting path that is formed in the insert prior to any cutting operation by the ultrasonic blade, and having a curved profile corresponding to a tip portion (46) of the cutting profile, the groove providing support during the cutting operation, wherein a backing of the backed ply material is urged into the groove during the cutting operation.

However, attention is directed to both the Gharst, Jung and Mosiewicz references which disclose cutting operations for cutting partially through a material. Jung discloses the use of both a cutting wheel and an ultrasonic cutting tool that can both be used to cut to a specified depth relative to the material to be cut and also the plastic supporting surface, which is utilized to protect the anvil and blade from contacting. Alternatively, Gharst discloses a cutting wheel to cut through a two ply material, where the blade severs the top layer, yet leaves the backing layer unscathed. Gharst discloses this means is accomplished by utilizing a slitting groove positioned underneath the cutting wheel, which additionally provides for a cleaner cut without damaging the cutting wheel or the anvil by incidental cutting contact. Although Gharst

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does not disclose that the slitting groove is usable with an ultrasonic cutting tool, as shown by Jung that the two types of cutting tools, cutting wheels, and ultrasonic cutters, are both usable to cut a specified depth into a material. Attention is also directed to the Mosiewicz reference which discloses an ultrasonic cutting tool that utilizes a channel or groove with a width slightly larger than the blade to permit a lower portion of the blade to pass below a bottom surface of the workpiece as the workpiece is being cut (paragraph [0011]). It would have been obvious to one having ordinary skill in the art to have similarly tried utilizing a groove positioned in the anvil of Bell to effect either a partial cut or to protect the Bell ultrasonic cutting blade from contact with the anvil as taught by Gharst and Jung and Mosiewicz. The modified device of Bell still does not disclose that the channel (73) is an inverted "T" shape, nor that the insert is also "T" shaped. However, attention is directed to Hreha that discloses another insert possessing an inverted T-shape that mates with a corresponding inverted -T shaped channel. Hreha discloses that providing inserts of a variety of shapes (see at least Figure 2 and 7) is well known in the art as they allow the insert to be removably secured within the channel. T-shaped inserts unlike rectangular inserts hinder the movement of the insert in the forward direction. It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the inserts of Bell to comprise a T-shape as taught by Hera as T-shaped inserts are old and well known in the art for improvements in more secure, yet detachable connections.

The limitations of the backing being more flexible than the ply and diverging at an interface between the grove and tip, when the backing is urged into the groove during

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cutting operations are a function of the properties of the workpiece and therefore in of themselves do not impart any structural significance and are considered intended use limitations.

In regards to claim 7, the modified device of Bell discloses wherein the insert (74) comprises a polymeric material (Lexan plastic).

In regards to claim 8, the modified device of Bell discloses wherein the polymeric material comprises an ultra high molecular weight polymer (Lexan plastic is a high molecular weight polymer).

In regards to claim 25, the modified device of Jung discloses wherein the groove has a predetermined depth (at least supporting the tip of the blade) and capable of being a function of a thickness and material characteristics of the backed ply material.

4. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (U.S. Patent 5,265,508), herein referred to as Bell and in view of Gharst et al. (U.S. Patent 6,813,985), herein referred to as Gharst and Jung (U.S. Patent 6,152,003) and in still further view of Hreha (U.S. Patent 4,077,290), Miller, Backlund (U.S. Patent 4,060,017), and also Plilkington (U.S. Patent 4,920,495), Gerber et al. (U.S. Patent 4,373,412) and Greve (U.S. Patent 5,072,640). The modified device of Bell discloses the claimed invention except for the material of the anvil. It is first noted that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. As applicant claims that the anvil could be a metal, high

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pressure laminate, polymeric material, or a resin, apparently the material of the anvil is not very critical, in as long as the anvil structure is then capable of providing a solid, supporting surface to interact with the ultrasonic cutter. Furthermore, the use of strong, durable materials, such as metals, plastics, and laminates for anvils in combination with cutters, ultrasonic or otherwise, is old and well known in the art as supported by Backlund, Greve, Pilkington, and Gerber. One having ordinary skill in the art at the time of the invention would have been similarly motivated to have designed the Bell anvil to be comprised of a well known structurally supportive material, as the claimed materials were well known for use in the anvil art and the modification would have yielded nothing more than predictable results of a structurally supportive cutting surface.

5. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (U.S. Patent 5,265,508), herein referred to as Bell in view of in view of Gharst et al. (U.S. Patent 6,813,985), herein referred to as Gharst and Jung (U.S. Patent 6,152,003) and in still further view of Hreha (U.S. Patent 4,077,290) and in further view of Miller (U.S. Patent 5,028,052) and Backlund (U.S. Patent 4,060,017). The modified device of Bell discloses the claimed invention except that insert (74) comprises a high pressure laminate or nylon. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the resilient Lexan plastic for another material such as a HPL or nylon, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

### ***Response to Arguments***

6. Applicant's arguments filed 12/17/2009 have been fully considered but they are not persuasive. As discussed in the previous interview of 11/13/09, it appeared that the proposed amendments would overcome the prior art, if the limitations of the separation of the backing and the ply of the backed ply material diverge because of some structure of the anvil, groove, and cutting blade. As indicated by application, the separation of the two layers is mainly due to the design of how they adhere together and not a function of the movement of the blade over the groove. Thereby the modified device of Jung would appear to be quite capable of separating applicant's or a similarly configured ply and backed ply material, as the separation limitations appear to be a matter of intended use with a specific material and not a structural recitation.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura M Lee/  
Examiner, Art Unit 3724  
1/26/2010

/Boyer D. Ashley/  
Supervisory Patent Examiner, Art  
Unit 3724